3.14 SOCIO-ECONOMIC CONDITIONS

This section describes the existing socioeconomic conditions around Ames Research Center. It presents information about population and employment at the regional, county, and local levels. It analyzes the local housing market. It describes the fiscal condition of the county, local jurisdictions and school districts, and Ames Research Center itself. Finally, the section concludes with a discussion of environmental justice, including race and income statistics for areas surrounding Ames Research Center.

A. Population Characteristics

This section describes regional, county and local population characteristics.

1. San Francisco Bay Area

Ames Research Center is located between the Cities of Sunnyvale and Mountain View at the southern end of the San Francisco Bay Area. The Bay Area is a major population, economic, and financial center of the western United States, and includes nine counties with a total population of 6,930,600, according to the Association of Bay Area Governments (ABAG). This population comprises approximately one fifth of California's 34 million residents. The Bay Area includes the counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. While some definitions of the Bay Area add Santa Cruz as a tenth county, this analysis adheres to a nine-county definition as set forth by ABAG.

As shown in Table 3.14-1, the Bay Area has experienced dramatic population growth over the last decade, increasing at an average annual rate of 1.4 percent between 1990 and 2000. The three largest counties – Santa Clara, Alameda, and Contra Costa – make up over 57 percent of the Bay Area population, and account for 43 percent of the region's growth during the last decade.

Over the next 15 years, ABAG projects the region will grow by approximately 13 percent to over 7.8 million people, as summarized in Table 3.14-2.

2. Santa Clara County

Santa Clara County has experienced significant population growth in recent years as a result of the high-tech industrial boom in Silicon Valley. Between 1990 and 2000, the County population grew from 1.5 million to 1.8 million, at an annual rate of 1.6 percent. This increase accounted for 28.7 percent of the entire Bay Area's growth during this period.

Santa Clara County is forecasted to add more people than any other Bay Area county over the next 15 years. ABAG projects an increase of 215,300 Santa Clara County residents between 2000 and 2015, a 12.3 percent increase. Current population data and forecasts for the county are contained in Tables 3.14-1 and 3.14-2.

The number of Santa Clara County households is also increasing, though at a slightly lower rate than the total population. Between 2000 and 2005, the County will add another 27,670 households, at an annual rate of 1.0 percent. In the next five years, Santa Clara County's household size will increase from 3.03 persons per household to 3.05 persons per household. At the time of the 1990 U.S. Census (latest data available), 59 percent of County households owned their home. This ownership rate is only slightly lower than the Bay Area rate of 60 percent.

As summarized in Table 3.14-3, the County's mean household income has increased over the last decade, reflecting the region's economic prosperity. From 1990 to 2000, Santa Clara County's mean household income grew from $70,300 to $86,300 (in constant 1995 dollars), a 19 percent increase. This growth rate is somewhat higher than the 16 percent rate in the Bay Area as a whole over the same period. County household income distribution is presented in Table 3.14-4.

Santa Clara County has a slightly younger population when compared to the Bay Area. The County's median age is 35.3 years, as compared to 36.9 for the Bay Area. Table 3.14-5 shows age data for the region, county, and local area.

TABLE 3.14-1 **POPULATION AND HOUSEHOLD TRENDS**

	1990	2000 (est.)	Average Annual Change 1990-2000
AMES RESEARCH CENTER AREA[1]			
Population[2]	184,689	212,000	1.4%
Households[2]	78,286	83,810	0.7%
Average Household Size[2]	2.35	2.51	0.7%
Employed Residents per Household[2]	1.47	1.54	0.5%
Household Type - Families[3]	57%	55%	-0.3%
Household Type - Non-Families[3]	43%	45%	0.4%
Tenure - Owner[4]	45%	NA	-
Tenure - Renter[4]	55%	NA	-
SANTA CLARA COUNTY			
Population	1,497,577	1,755,300	1.6%
Households	520,180	567,080	0.9%
Average Household Size	2.81	3.03	0.8%
Employed Residents per Household	1.56	1.64	0.5%
Household Type - Families	69%	67%	-0.3%
Household Type - Non-Families	31%	33%	0.6%
Tenure - Owner	59%	NA	-
Tenure - Renter	41%	NA	-
SAN FRANCISCO BAY AREA			
Population	6,020,147	6,930,600	1.4%
Households	2,245,865	2,438,060	0.8%
Average Household Size	2.61	2.78	0.6%
Employed Residents per Household	1.40	1.45	0.3%
Household Type - Families	65%	63%	-0.2%
Household Type - Non-Families	35%	37%	0.4%
Tenure - Owner	60%	NA	-
Tenure - Renter	40%	NA	-

Notes:
1. Ames Research Center Area includes the combined jurisdictions of Mountain View and Sunnyvale. Population and Households are totals, all other figures are a weighted average.
2. Population, Households, Average Household Size, and Employed Residents per Household data from ABAG, Projections 2000.
3. Household Type data from Claritas, Inc.
4. Tenure data from 1990 U.S. Census.

Sources: ABAG, *Projections 2000*; Claritas Inc.; 1990 US Census; Bay Area Economics, 2001.

TABLE 3.14-2 **POPULATION AND HOUSEHOLD PROJECTIONS**

	2000	2005	2010	2015	Projected Change 2000-2015
POPULATION					
Ames Research Center Area[1]	212,000	224,800	232,800	239,100	12.8%
Santa Clara County	1,755,300	1,854,000	1,919,000	1,970,600	12.3%
San Francisco Bay Area	6,930,600	7,380,100	7,631,400	7,832,600	13.0%
HOUSEHOLDS					
Ames Research Center Area[1]	83,810	87,420	90,640	93,890	12.0%
Santa Clara County	567,080	594,750	620,760	643,130	13.4%
San Francisco Bay Area	2,438,060	2,553,930	2,656,650	2,753,440	12.9%

Notes:
1. Ames Research Center Area includes the combined jurisdictions of Mountain View and Sunnyvale.

Sources: ABAG, *Projections 2000*; Bay Area Economics, 2001.

3. Ames Research Center Area

This analysis refers to the cities of Sunnyvale and Mountain View – the two jurisdictions surrounding Ames Research Center – as the "Ames Research Center area." The ARC area has a population of 212,000, and comprises approximately 12 percent of County residents. The area's population has grown rapidly over the last ten years, though at a slightly lower rate than the County. From 1990 to 2000, the ARC area saw an annual population increase of 1.4 percent, compared to the County's annual growth rate of 1.6 percent. Over the next 15 years, ABAG projects the ARC area's population to grow another 12.8 percent, adding 27,100 people.

TABLE 3.14-3 **MEAN HOUSEHOLD INCOME TRENDS**

	1990[1]	2000 (est.)	Change 1990-2000
Ames Research Center Area[2]	$63,191	$80,707	22%
Santa Clara County	$70,300	$86,300	19%
San Francisco Bay Area	$64,100	$76,400	16%

Notes:
1. All income amounts are expressed in inflation-adjusted 1995 dollars.
2. Ames Research Center Area includes the combined jurisdictions of Mountain View and Sunnyvale. Figure is the average of both cities' mean household income, adjusted for population.

Sources: ABAG, *Projections 2000*; Bay Area Economics, 2000.

The number of ARC area households is increasing at a rate of 0.7 percent a year, slightly lower than the County rate of 0.9 percent a year. The ARC area's home ownership rate is significantly lower than the County figure. Only 45 percent of ARC area households own their homes, as compared to 59 percent for the County.

Although the ARC area's mean household income is lower than the County's, it is increasing at a higher rate than the County figure. The ARC area's mean household income grew from $63,191 to $80,707 (in constant 1995 dollars) between 1990 and 2000, a 22 percent increase. In contrast, County households only experienced a 19 percent rise in mean income during the same period. ARC area household income distribution is presented in Table 3.14-4.

As shown in Table 3.14-5, the ARC area population is slightly older than the population of Santa Clara County, with a median age of 37.2 in 2000, as compared to 35.3 for the County.

TABLE 3.14-4 **ESTIMATED 2000 HOUSEHOLD INCOME DISTRIBUTION**

2000 Income	Ames Research Center Area[1]	Santa Clara County	San Francisco Bay Area
Less than $15,000	4.6%	6.2%	9.4%
$15,000 to $24,999	5.4%	6.0%	8.4%
$25,000 to $34,999	5.8%	6.2%	8.6%
$35,000 to $49,999	10.0%	10.3%	12.7%
$50,000 to $74,999	19.1%	19.2%	20.6%
$75,000 to $99,999	17.0%	16.3%	14.8%
$100,000 and above	38.2%	35.7%	25.6%
Median Income	**$82,568**	**$78,057**	**$62,571**

Notes:
1. Ames Research Center Area includes the combined jurisdictions of Mountain View and Sunnyvale.

Sources: Claritas, Inc.; Bay Area Economics, 2000.

B. Employment

This section presents employment data for the region, county and local area.

1. San Francisco Bay Area

According to ABAG, the Bay Area has approximately 3.7 million full and part time jobs. Although the early 1990s brought a softening of the region's economy, current Bay Area employment levels are well above pre-recession levels. Between 1990 and 2000, the number of jobs in the Bay Area increased

TABLE 3.14-5 **AGE DISTRIBUTION 1990 AND 2000**

	1990	2000 (est.)
AMES RESEARCH CENTER AREA[1]		
Under 18	18.8%	21.0%
18-24	10.4%	6.1%
25-34	25.9%	18.6%
35-44	16.1%	19.4%
45-54	10.3%	14.4%
55-64	8.2%	8.8%
65+	10.2%	11.7%
Median Age	33.0	37.2
SANTA CLARA COUNTY		
Under 18	24.2%	24.7%
18-24	11.6%	8.6%
25-34	21.1%	16.1%
35-44	16.2%	17.4%
45-54	10.8%	14.5%
55-64	7.5%	8.4%
65+	8.6%	10.2%
Median Age	**31.7**	**35.3**
SAN FRANCISCO BAY AREA		
Under 18	23.2%	23.9%
18-24	10.5%	8.0%
25-34	19.6%	14.8%
35-44	17.1%	18.0%
45-54	10.8%	14.8%
55-64	7.9%	8.8%
65+	11.0%	11.7%
Median Age	**33.4**	**36.9**

Notes:
1. Ames Research Center Area includes the combined jurisdictions of Mountain View and Sunnyvale.
Sources: Claritas, Inc.; Bay Area Economics, 2000.

by 15 percent. Much of this job growth was fueled by the rapid expansion of information technology, Internet, multimedia, e-commerce, and biotech industries, in addition to the traditionally-strong financial and real estate sectors. ABAG expects employment to grow at an annual rate of approximately 1.3 percent over the next 15 years. Table 3.14-6 contains employment data for the region and county.

The region's economy is mainly concentrated in services, wholesale and retail trade, and manufacturing. These four industry sectors make up 74 percent of the region's employment. ABAG forecasts a continuation of this trend through 2015.

The manufacturing sector composes 15 percent of the Bay Area's total employment. ABAG reports that technology jobs make up over 54 percent of this sector, reflecting the Bay Area's role as a global center for the development of information technology and other high-tech industries. The region benefits from a research and development infrastructure that boasts nine world-class research facilities and numerous other companies with major commitments to high-technology research and development. This concentration of public and private research and development institutions is a key factor in maintaining the Bay Area's technology leadership and innovation. The proximity of Bay Area research facilities to each other and to private industry attracts highly-skilled labor that typically migrates to research and administrative positions in federal or industry laboratories, enters private companies, or starts new technology-based firms.

Business services, banking, and the finance industry have grown in tandem with the technology sector. ABAG projects the number of business service jobs to grow faster than any other employment sector, at an annual rate of 1.7 percent from 2000 to 2015.

TABLE 3.14-6 **EMPLOYMENT PROJECTIONS BY INDUSTRY SECTOR**

SAN FRANCISCO BAY AREA	1990		2000		2015		2000 to 2015
Industry Sector	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**	**Annual Change**
Agriculture and Mining	36,980	1.2%	37,780	1.0%	37,480	0.8%	-0.1%
Construction	148,360	4.6%	185,800	5.0%	214,680	4.8%	1.0%
Manufacturing	516,920	16.1%	558,790	15.1%	656,760	14.7%	1.1%
High Technology	*273,790*	*8.5%*	*302,920*	*8.2%*	*338,890*	*7.6%*	*0.8%*
Transportation/Public Utilities	189,390	5.9%	223,570	6.1%	280,830	6.3%	1.5%
Wholesale Trade	192,000	6.0%	199,620	5.4%	253,280	5.7%	1.6%
Retail Trade	534,960	16.7%	579,960	15.7%	659,420	14.8%	0.9%
Finance, Insurance, Real Estate	228,310	7.1%	240,550	6.5%	270,670	6.1%	0.8%
Services	1,067,460	33.3%	1,390,860	37.7%	1,791,000	40.2%	1.7%
Business Services	*370,550*	*11.6%*	*541,050*	*14.7%*	*692,890*	*15.5%*	*1.7%*
Government	291,700	9.1%	271,660	7.4%	296,540	6.6%	0.6%
Total Employment	**3,206,080**		**3,688,590**		**4,460,660**		**1.3%**
SANTA CLARA COUNTY							
Agriculture and Mining	7,210	0.8%	7,430	0.7%	7,180	0.6%	-0.2%
Construction	31,060	3.5%	47,090	4.4%	51,590	4.1%	0.6%
Manufacturing	276,460	31.0%	286,260	26.6%	326,790	25.9%	0.9%
High Technology	*203,800*	*22.9%*	*217,710*	*20.2%*	*232,020*	*18.4%*	*0.4%*
Transportation/Public Utilities	23,680	2.7%	33,700	3.1%	42,420	3.4%	1.5%
Wholesale Trade	63,420	7.1%	62,410	5.8%	79,730	6.3%	1.6%
Retail Trade	129,700	14.6%	149,250	13.9%	163,950	13.0%	0.6%
Finance, Insurance, Real Estate	35,150	3.9%	39,240	3.6%	44,480	3.5%	0.8%
Service	270,230	30.3%	390,470	36.2%	479,250	38.0%	1.4%
Business Services	*109,580*	*12.3%*	*197,710*	*18.4%*	*222,230*	*17.6%*	*0.8%*
Government	54,020	6.1%	61,370	5.7%	64,470	5.1%	0.3%
Total Employment	**890,930**		**1,077,220**		**1,259,860**		**1.0%**

Sources: ABAG, *Projections 2000*; Bay Area Economics, 2001

2. Santa Clara County

The technology sector has a particularly strong influence on the Santa Clara County economy. ABAG reports that over 20 percent of the County's 1.0 million jobs are in the manufacturing of high technology. By 2015, however, high technology's share of jobs is expected to fall to 18 percent of total employment.

As with the Bay Area, manufacturing, service, wholesale, and retail trade sectors comprise the bulk of the County's employment, with 82.5 percent of all jobs. Employment data for Santa Clara County are shown in Table 3.14-6.

3. ARC Area

As shown in Table 3.14-7, the ARC area contains 209,030 jobs, almost 20 percent of all jobs in Santa Clara County. Almost 44 percent of ARC area jobs are in the Manufacturing & Wholesale Sector.

Even with the declining national economy and downturns in the technology sector, Sunnyvale and Mountain View's location in the heart of Silicon Valley grants these cities a prime position in the high-tech industry. Major technology firms in the ARC Area include Yahoo!, Network Appliances, Silicon Graphics, and Hewlett Packard.

C. Housing

This section describes existing housing conditions in the area most likely to be affected by proposed development at Ames Research Center.

1. Defining the Housing Impact Area

Bay Area housing markets do not conform uniformly to geographic and jurisdictional boundaries. Therefore, an analysis of housing market conditions and the housing impact of the NADP requires a distinct study area.

TABLE 3.14-7 **EMPLOYMENT PROJECTIONS BY INDUSTRY SECTOR - AMES RESEARCH CENTER AREA**

	2000		2010		2015		2000 to 2015
	Number	Percent	Number	Percent	Number	Percent	Annual Change
Ames Research Center Area[1]							
Manufacturing and Wholesale	91,130	43.6%	99,420	43.6%	101,530	43.3%	0.7%
Retail	23,280	11.1%	24,210	10.6%	24,650	10.5%	0.4%
Service	58,990	28.2%	65,820	28.8%	68,430	29.2%	1.0%
Other	35,630	17.0%	38,810	17.0%	39,950	17.0%	0.8%
Total	209,030		228,260		234,560		0.8%

Notes:
1. Ames Research Center Area includes the combined jurisdictions of Mountain View and Sunnyvale.

Sources: ABAG, *Projections 2000*; Bay Area Economics, 2001.

To define this area, data from the Metropolitan Transportation Commission's (MTC) *Commuter Forecasts for the San Francisco Bay Area 1990-2020* was analyzed. Since MTC organizes its data into "superdistricts" that do not correspond directly with jurisdictional boundaries, this analysis assumes that workers in Superdistrict 9 – the Sunnyvale/Mountain View Superdistrict – serve as a valid proxy for employees at Ames Research Center. The Housing Impact Area associated with the NADP was then drawn by examining the residential patterns of commuters to Superdistrict 9. Commuter forecasts for 2010 were used to conduct this analysis, as this is the closest year available to the NADP's projected build-out date of 2013. The complete MTC data set is contained in Table 3.14-8.

TABLE 3.14-8 **COMMUTERS TO SUNNYVALE/MOUNTAIN VIEW SUPERDISTRICT**

Super-district	District of Residence	District of Work	2000 Number	% of Total	2010 Number	% of Total
1	Downtown SF	Sunnyvale/Mountain View	548	0.1%	599	0.1%
2	Richmond District	Sunnyvale/Mountain View	1,153	0.3%	1,197	0.2%
3	Mission District	Sunnyvale/Mountain View	1,513	0.4%	1,593	0.4%
4	Sunset District	Sunnyvale/Mountain View	910	0.2%	942	0.3%
5	Daly City/San Bruno	Sunnyvale/Mountain View	2,306	0.6%	2,510	0.6%
6	**San Mateo/Burlingame**	**Sunnyvale/Mountain View**	**5,497**	**1.5%**	**6,095**	**1.5%**
7	**Redwood City/Menlo Park**	**Sunnyvale/Mountain View**	**9,838**	**2.6%**	**11,180**	**2.7%**
8	**Palo Alto/Los Altos**	**Sunnyvale/Mountain View**	**22,128**	**5.9%**	**24,526**	**5.8%**
9	**Sunnyvale/Mountain View**	**Sunnyvale/Mountain View**	**74,583**	**19.9%**	**87,497**	**20.8%**
10	**Saratoga/Cupertino**	**Sunnyvale/Mountain View**	**56,462**	**15.0%**	**61,248**	**14.5%**
11	**Central San Jose**	**Sunnyvale/Mountain View**	**38,805**	**10.3%**	**43,348**	**10.3%**
12	**Milpitas/East San Jose**	**Sunnyvale/Mountain View**	**61,051**	**16.3%**	**67,192**	**16.0%**
13	**South San Jose/Almaden**	**Sunnyvale/Mountain View**	**29,403**	**7.8%**	**31,735**	**7.5%**
14	**Gilroy/Morgan Hill**	**Sunnyvale/Mountain View**	**5,568**	**1.5%**	**5,386**	**1.3%**
15	**Livermore/Pleasanton**	**Sunnyvale/Mountain View**	**5,950**	**1.6%**	**7,128**	**1.7%**
16	**Fremont/Union City**	**Sunnyvale/Mountain View**	**23,652**	**6.3%**	**25,349**	**6.0%**
17	Hayward/San Leandro	Sunnyvale/Mountain View	3,992	1.1%	4,204	1.0%
18	Oakland/Alameda	Sunnyvale/Mountain View	1,558	0.4%	1,626	0.4%
19	Berkeley/Albany	Sunnyvale/Mountain View	467	0.1%	483	0.1%
20	Richmond/El Cerrito	Sunnyvale/Mountain View	522	0.1%	553	0.1%
21	Concord/Martinez	Sunnyvale/Mountain View	731	0.2%	825	0.2%
22	Walnut Creek/Lamorinda	Sunnyvale/Mountain View	592	0.2%	660	0.2%
23	Danville/San Ramon	Sunnyvale/Mountain View	2,487	0.7%	2,997	0.7%
24	Antioch/Pittsburg	Sunnyvale/Mountain View	1,135	0.3%	1,419	0.3%
25	Vallejo/Benicia	Sunnyvale/Mountain View	386	0.1%	408	0.1%
26	Fairfield/Vacaville	Sunnyvale/Mountain View	534	0.1%	614	0.1%

Super-district	District of Residence	District of Work	2000 Number	% of Total	2010 Number	% of Total
27	Napa	Sunnyvale/Mountain View	61	0.0%	54	0.0%
28	St. Helena/Calistoga	Sunnyvale/Mountain View	65	0.0%	63	0.0%
29	Petaluma/Sonoma	Sunnyvale/Mountain View	59	0.0%	56	0.0%
30	Santa Rosa/Sebastopol	Sunnyvale/Mountain View	99	0.0%	84	0.0%
31	Healdsburg/Cloverdale	Sunnyvale/Mountain View	77	0.0%	72	0.0%
32	Novato	Sunnyvale/Mountain View	136	0.0%	140	0.0%
33	San Rafael	Sunnyvale/Mountain View	190	0.1%	198	0.0%
34	Mill Valley/Sausalito	Sunnyvale/Mountain View	107	0.0%	115	0.0%
	Santa Cruz County	Sunnyvale/Mountain View	6,514	1.7%	8,192	1.9%
	San Joaquin County	Sunnyvale/Mountain View	4,672	1.2%	6,027	1.4%
	Stanislaus County	Sunnyvale/Mountain View	5,389	1.4%	6,713	1.6%
	Sacramento County	Sunnyvale/Mountain View	3,216	0.9%	4,033	1.0%
	Monterey County	Sunnyvale/Mountain View	647	0.2%	940	0.2%
	San Benito County	Sunnyvale/Mountain View	894	0.2%	1,152	0.3%
	Placer County	Sunnyvale/Mountain View	639	0.2%	859	0.2%
	Merced County	Sunnyvale/Mountain View	603	0.2%	711	0.1%
	Yolo County	Sunnyvale/Mountain View	160	0.0%	176	0.0%
	Lake County	Sunnyvale/Mountain View	56	0.0%	62	0.0%
	Mendocino County	Sunnyvale/Mountain View	0	0.0%	0	0.0%
	Colusa County	Sunnyvale/Mountain View	0	0.0%	0	0.0%
		Total	**375,355**	**100%**	**420,961**	**100%**

Note: Bolded superdistricts are within Housing Impact Area.

Source: Metropolitan Transportation Commission, *Commuter Forecasts for the San Francisco Bay Area 1990-2020*; Bay Area Economics, 2001.

The MTC data showed a sizeable commute-shed, with workers traveling from Marin, Yolo, and even Sacramento County to reach Superdistrict 9. Other reports have also illustrated people's willingness to drive great distances to Silicon Valley jobs. The San Joaquin Council of Governments' Altamont Pass 2000 Commuter Survey shows that 21 percent of drivers commuting through the Altamont Pass, the gateway to the Tri-Valley, were destined for Santa Clara County. These trends suggest that an extremely broad Housing Impact Area could be drawn around Ames Research Center.

However, an overly-broad Housing Impact Area spreads the impact across a large market, possibly masking effects on local communities. To avoid this result, this analysis takes a more conservative approach, and examines the housing impact on a smaller area than the full commute-shed. The methodology assumes that NRP workers will search areas near their workplace for affordable housing before going further afield. MTC data validates this assumption, showing that the vast majority of commuters to Superdistrict 9 in 2010 will reside in the immediate Santa Clara County.

As such, only superdistricts that generated over one percent or more of the total commuters to Superdistrict 9 were included in the Housing Impact Area. Three counties outside the Bay Area – Santa Cruz, Stanislaus, and San Joaquin Counties - fell above the one percent cutoff line. These counties are excluded from the Housing Impact Area because commuters from these areas come from an entire county which is larger than a single superdistrict. The greater than one percent standard, therefore, does not apply. Further, as stated above, a smaller Housing Impact Area is a more conservative approach to determining housing impact. Table 3.14-9 contains the superdistricts included in the Housing Impact Area and lists the number of commuters from each superdistrict. Together, these superdistricts generate over 88 percent of commuters to Superdistrict 9.

TABLE 3.14-9 **DEFINITION OF THE HOUSING IMPACT AREA**

District of Residence	District of Work	Number[a]	Percent of All Commuters to Sunnyvale/ Mountain View Superdistrict
Sunnyvale/Mountain View	Sunnyvale/Mountain View	87,497	20.8%
Milpitas/East San Jose	Sunnyvale/Mountain View	67,192	16.0%
Saratoga/Cupertino	Sunnyvale/Mountain View	61,248	14.5%
Central San Jose	Sunnyvale/Mountain View	43,348	10.3%
South San Jose/Almaden	Sunnyvale/Mountain View	31,735	7.5%
Palo Alto/Los Altos	Sunnyvale/Mountain View	24,526	5.8%
Fremont/Union City	Sunnyvale/Mountain View	25,349	6.0%
Redwood City/Menlo Park	Sunnyvale/Mountain View	11,180	2.7%
Livermore/Pleasanton	Sunnyvale/Mountain View	7,128	1.7%
San Mateo/Burlingame	Sunnyvale/Mountain View	6,095	1.4%
Gilroy/Morgan Hill	Sunnyvale/Mountain View	5,386	1.3%
TOTAL		**370,684**	**88.1%**
All Commuters to Sunnyvale/ Mountain View Superdistrict		420,961	

[a] Forecasts for 2010 were used, as this is the closest date available to NRP's anticipated buildout year of 2013.

Sources: Metropolitan Transportation Commission, *Commuter Forecasts for the San Francisco Bay Area 1990-2020;* Bay Area Economics, 2001.

2. Housing Impact Area Population Characteristics

Rather than describing changes over the last decade, this section concentrates on population and household trends in the Housing Impact Area between 2000 and 2015. This time series corresponds with the NADP's anticipated build out year of 2013.

The Housing Impact Area's population characteristics are summarized in Table 3.14-10. According to ABAG, the Housing Impact Area had 2.7 million persons in 2000, and will increase by an average annual rate of 0.8 percent to 3.0 million by 2015. The number of households will grow from 884,543 to about 1 million between 2000 and 2015 at an average annual rate of 0.9 percent. The average household size will decrease from 2.98 to 2.96, while the mean household income will rise from $73,115 to $86,322 (in constant 1989 dollars as calculated by MTC).

3. Housing Market in the Housing Impact Area

This section analyzes the current housing market conditions in the Housing Impact Area. It examines the housing stock, rental and ownership markets, and affordability. Although the housing market is likely to shift dramatically between 2000 and the NADP build-out date, this data helps to establish the baseline conditions for analysis.

The Bay Area housing market is one of the most competitive in the country. Rapid population and employment growth, described above, is largely responsible for a lack of housing supply and great demand. ABAG estimates the potential for 308,800 units between 2000 and 2015, based on available land supply and current local land use policies, and 315,380 new households over the same period. These projections result in a net housing shortage of 6,580 units by 2015. Additionally, the Metropolitan Transportation Commission estimates that the region will also have 203,444 in-commuters from outside the region by 2010. Assuming 1.5 employed residents per household, this suggests a regional housing shortage of over 130,000 units by 2010, with an even greater housing shortfall by 2015.

TABLE 3.14-10 **HOUSING IMPACT AREA CHARACTERISTICS**

Housing Impact Area[1]	2000	2015	Total Change 2000 to 2015	Annual Change 2000 to 2015
Population	2,694,261	3,048,158	354,257	0.8%
Households	884,543	1,009,775	125,232	0.9%
Average Household Size	2.98	2.96	-0.02	0.0%
Average Workers Per Household	1.61	1.68	0	0.3%
Mean Household Income[2]	$73,115	$86,322	$13,207	1.1%

Notes:
[1] Housing Impact Area includes the MTC Superdistricts listed in Table 3.14-9.
[2] In constant 1989 dollars.

Sources: MTC, *Superdistrict and County Summaries of ABAG Projections 2000, 1990-2020*; Bay Area Economics, 2001.

The Housing Impact Area, as a subset of the Bay Area, suffers from similar conditions. The housing market in the Housing Impact Area is discussed in detail in the following section.

a. Housing Stock

As shown in Table 3.14-11, ABAG estimates the total number of occupied units in the Housing Impact Area to be 884,543. Approximately 591,659, or 66.9 percent, of these are single-family dwellings, and 292,884 – 33.1 percent – are multifamily dwellings. The total number of occupied units is expected to increase by nearly 13.8 percent to 1 million by 2015, but the breakdown between single- and multifamily units will remain relatively constant.

TABLE 3.14-11 **HOUSING STOCK IN HOUSING IMPACT AREA**

	2000		2015			
Superdistrict	**Number of Units[1]**	**Percent of Total**	**Number of Units[1]**	**Percent of Total**	**Percent Change 2000 to 2015**	**Change as Percent of Total New Units in HIA**
Sunnyvale/Mountain View	87,830	9.9%	103,887	10.3%	18.3%	12.9%
Milpitas/East San Jose	97,187	11.0%	111,580	11.1%	14.8%	11.6%
Saratoga/Cupertino	117,194	13.2%	126,525	12.5%	8.0%	7.5%
Central San Jose	97,646	11.0%	113,849	11.3%	16.6%	13.0%
South San Jose/Almaden	68,725	7.8%	76,134	7.5%	10.8%	5.9%
Palo Alto/Los Altos	69,446	7.9%	75,777	7.5%	9.1%	5.1%
Fremont/Union City	98,859	11.2%	109,304	10.8%	10.6%	8.4%
Redwood City/Menlo Park	77,383	8.7%	82,447	8.2%	6.5%	4.1%
Livermore/Pleasanton	61,653	7.0%	85,111	8.4%	38.0%	18.8%
San Mateo/Burlingame	79,568	9.0%	86,079	8.5%	8.2%	5.2%
Gilroy/Morgan Hill	29,052	3.3%	36,382	3.8%	25.2%	7.5%
Multi-Family Dwellings	292,884	33.1%	336,483	33.3%	14.9%	35.0%
Single-Family Dwellings	591,659	66.9%	673,292	66.7%	13.8%	65.6%
Total	884,543		1,009,075		14.1%	

Notes:
1. Only includes occupied units.

Sources: MTC, *Superdistrict and County Summaries of ABAG's Projections 2000, 1990-2020*; Bay Area Economics, 2001.

Four superdistricts – Livermore/Pleasanton, Sunnyvale/Mountain View, Central San Jose, and Milpitas/East San Jose – are expected to absorb approximately 56 percent of new households in the Housing Impact Area between 2000 and 2015. The Livermore/Pleasanton Superdistrict alone will gain over 23,000 occupied units, which represents almost 19 percent of all occupied units constructed in the Housing Impact Area during this period. The Sunnyvale/Mountain View Superdistrict will see the second largest growth spurt, gaining over 16,000 occupied units, or 12.9 percent of all occupied units constructed in the Housing Impact Area.

While data on jobs-housing imbalance in the HIA is not available, ABAG anticipates that Santa Clara County alone faces a 35,180 unit shortage between 2000 and 2015.

b. Rental Housing Market

Table 3.14-12 presents rental housing cost data for the Housing Impact Area. According to a Real Facts survey of multi-family complexes with at least 50 units, the average rent in the Housing Impact Area was $1,763 a month and the average vacancy rate was 3.9 percent, as of March 2001. The Housing Impact Area's highly competitive rental housing market has loosened up over the last year. Between 2000 and the second quarter of 2001, although the average rent rose approximately 11.0 percent, the vacancy rate rose 2.4 percent.

Table 3.14-13 contains data on rental affordability in the Housing Impact Area. Affordable rents are calculated for households at the 25th percentile, the median, and the 75th percentile of Santa Clara County incomes in 2000. Households at the 25th percentile of household income can afford a monthly rent of $1,122; households at the median household income can afford a monthly rent of $1,951; and households at the 75th percentile of household income can afford a monthly rent of $3,122. All affordable rents include utilities, and represent 30 percent of the household income. Tables 3.14-11 and 3.14-12 show the monthly rent ranges of various unit types in the Housing Impact Area. These can be compared to the affordable rents for each income level to determine what unit types are available to different household incomes.

TABLE 3.14-12 **OVERVIEW OF THE HOUSING IMPACT AREA RENTAL HOUSING MARKET**

CURRENT MARKET DATA

Unit Type	Number	Percent of Mix	Average Square Feet	Average Rent	Average Rent/ Square Feet
Studio	6,672	6.3%	468	$1,356	$2.90
1 BR/1 BA	47,762	45.2%	698	$1,594	$2.28
2 BR Townhouse	2,740	2.6%	1,071	$1,983	$1.85
2 BR/1 BA	15,209	14.4%	878	$1,694	$1.93
2 BR/2 BA	29,171	27.6%	1,011	$2,062	$2.04
3 BR Townhouse	494	0.5%	1,237	$2,367	$1.91
3 BR/2 BA	3,701	3.5%	1,217	$2,364	$1.94
Totals	105,750	100.0%	826	$1,763	$2.13

AVERAGE RENT HISTORY

Unit Type	1998	1999	1998-1999 Change	2000	1999-2000 Change	2001[1]	2000-2001 Change
Studio	$897	$935	4.2%	$1,225	31.0%	$1,382	12.8%
1 BR/1 BA	$1,136	$1,187	4.5%	$1,536	29.4%	$1,650	7.4%
2 BR Townhouse	$1,402	$1,483	5.8%	$1,891	27.5%	$2,048	8.3%
2 BR/1 BA	$1,217	$1,278	5.0%	$1592	24.6%	$1,732	8.8%
2 BR/2 BA	$1,513	$1,574	4.0%	$2,031	29.0%	$2,139	5.3%
3 BR Townhouse	$1,632	$1,716	5.1%	$2,102	22.5%	$2,446	16.4%
3 BR/2 BA	$1,726	$1,773	2.7%	$2,195	23.8%	$2,396	9.2%
Totals	$1,263	$1,321	4.8%	$1,639	24.1%	$1,820	11.0%

OCCUPANCY RATE

Year	Average Occupancy
1998	95.1%
1999	96.5%
2000	98.5%
2000[2]	96.1%

AGE OF HOUSING INVENTORY

Year	Percent of Inventory
Pre 1960s	3%
1960s	33%
1970s	36%
1980s	19%
1990s	9%

Notes:
1. Average of first two quarters of 2000.

Sources: Real Facts, Inc.; Bay Area Economics, 2001.

TABLE 3.14-13 **RENTAL HOUSING AFFORDABILITY ANALYSIS**

INCOME AND AFFORDABILITY

Income Level	**Estimated Household Income**[1]	**Monthly Affordable Rent**[2]
25th Percentile	$44,864	$1,122
Median	$78,057	$1,951
75th Percentile	$124,877	$3,122

RENTS[3]

Unit Type	**Average Low Rent**	**Average High Rent**	**Average Rent**
Studio	$1,330	$1,408	$1,382
1BR/1 BA	$1,560	$1,663	$1,650
2 BR Townhouse	$1,955	$2,039	$2,048
2 BR/1 BA	$1,674	$1,732	$1,732
2 BR/2 BA	$2,005	$2,176	$2,139
3 BR Townhouse	$2,340	$2,421	$2,446
3 BR/2 BA	$2,325	$2,443	$2,396
Totals	$1,725	$1,839	$1,820

Notes:
1. From Table 3.14-4: Estimated 2000 Household Income Distribution.
2. Affordable rent is considered to be 30% of household income, including utilities.
3. From Real Facts survey of apartment complexes with 50 or more units in Housing Impact Area. Rents as of June 2001.

Sources: Real Facts, Inc.; Bay Area Economics, 2001.

c. Ownership Housing Market

Table 3.14-14 contains data on all full, verified, and confirmed sales in the Housing Impact Area between August 17, 2001 and August 31, 2001. Using these sales as a sample, it is apparent that the Housing Impact Area contains some of the highest home prices in the region. The median single-family home in the Housing Impact Area is $491,250. The median sale price of a condominium in the Housing Impact Area during the same period is $338,500.

Table 3.14-15 presents an affordability analysis for ownership housing in the Housing Impact Area, using Santa Clara County's 2000 household income distribution as a basis for determining affordability. Households at the 25th percentile of household income can afford less than one percent of the single-family homes sold during the last two weeks of August 2001 in the Housing Impact Area. Households with the median household income can afford only two percent of the single-family homes sold during the same period, and households at the 75th percentile can afford only 41.8 percent of homes sold.

Condominiums are somewhat more affordable. Although households at the 25th percentile of household income can afford 1.3 percent of condominiums sold within the Housing Impact Area. Households at median and 75th percentile of household incomes can afford 25.0 percent and 82.5 percent of condominiums respectively.

D. Fiscal Environment

This section discusses the existing fiscal conditions in Santa Clara County, Sunnyvale, Mountain View, and the School Districts that take students from Moffett Field.

1. Ames Research Center

For fiscal purposes, Ames Research Center is a complex environment. This is partly due to the numerous legal jurisdictions overlaid on the site. The city

TABLE 3.14-14 **OVERVIEW OF HOUSING IMPACT AREA FOR-SALE HOUSING MARKET**

SINGLE-FAMILY			CONDOMINIUMS		
Sale Price	**Number of Units**	**Percent of Total**	**Sale Price**	**Number of Units**	**Percent of Total**
Less than $200,000	4	0.7%	Less than $150,000	4	2.5%
$200,000 to $249,999	2	1.0%	$150,000 to $199,999	5	3.1%
$250,000 to $299,999	7	2.2%	$200,000 to $249,999	18	11.3%
$300,000 to $349,999	32	8.8%	$250,000 to $299,999	29	18.1%
$350,000 to $399,999	74	16.5%	$300,000 to $349,999	28	17.5%
$400,000 to $449,999	100	13.8%	$350,000 to $399,999	24	15.0%
$450,000 to $499,999	61	11.1%	$400,000 to $449,999	19	11.9%
$500,000 to $549,999	54	7.3%	$450,000 to $499,999	14	8.8%
$550,000 to $599,999	47	7.0%	$500,000 to $549,999	6	3.8%
$600,000 to $649,999	27	6.4%	$550,000 to $599,999	4	2.5%
$650,00 to $699,999	22	3.7%	$600,000 to $649,999	4	2.5%
$700,000 to $749,999	17	4.2%	$650,000 to $699,999	1	0.6%
$750,000 to $799,999	26	2.4%	$700,000 and above	4	2.5%
$800,000 to $849,999	14	2.7%	**Total[1]**	160	
$850,000 to $899,999	7	1.5%			
$900,000 to $949,999	6	1.9%	**Median Sale Price**	$338,500	
$950,000 to $999,999	8	1.2%	**Average Sale Price**	$358,216	
$1,000,000 to $1,499,999	22	4.0%			
$1,500,000 to $1,999,999	8	1.6%			
$2,000,000 and above	8	0.7%			
Total[1]	**546**	**100.0%**			
Median Sale Price	$491,250				
Average Sale Price	$598,951				

Notes:
1. Represents all full, verified, and confirmed sales within the Housing Impact Area between August 17, 2001 and August 31, 2001.

Sources: First American Real Estate Services; Bay Area Economics, 2001.

TABLE 3.14-15 **FOR-SALE HOUSING AFFORDABILITY ANALYSIS**

		Single-Family Residence			Condominium		
Income Level	**Estimated Household Income[1]**	**Affordable Sale Price[2]**	**Number of Affordable Units[3]**	**Percent of All Sales**	**Affordable Sale Price[4]**	**Number of Affordable Units[5]**	**Percent of All Sales**
25th Percentile	$44,864	$163,401	1	0.2%	$139,700	2	1.3%
Median	$78,057	$284,295	11	2.0%	$272,704	40	25.0%
75th Percentile	$124,877	$454,821	228	41.8%	$460,313	132	82.5%

Notes:
1. From Table 3.14-4: Estimated 2000 Household Income Distribution
2. Assumes 70% annual fixed interest, 30-year term, 20% of sales price down payment, 1.1% property tax, 0.75% of sales price annual insurance, 30% of household income available for principal, interest, taxes, insurance.
3. Of all full, verified and confirmed single-family home sales in Housing Impact Area from 10/31/2000 to 11/15/2000. Table 3.14-13 contains sales data.
4. Assumes 7.0% annual fixed interest, 30-year term, 20% of sale price down payment, 1.1% property tax, $250/month homeowners dues, 30% of household income available for principal, interest, taxes, insurance.
5. Of all full, verified and confirmed condominium sales in Housing Impact Area from 8/17/01 to 8/31/01.

Source: Claritas, Inc.; First American Real Estate Services; Bay Area Economics, 2001.

limits of Sunnyvale and Mountain View, the Sunnyvale and Mountain View spheres of influence and two school districts all overlay Ames Research Center.

The majority of Ames Research Center lies within unincorporated Santa Clara County. However, portions of it, specifically parcels 116-07-010 and 116-12-008, fall within the City of Mountain View's limits. Parcel 015-36-009, the northern tip of Ames Research Center, is within the City of Sunnyvale. These boundaries and their jurisdictional status affect which jurisdiction may assess various taxes on the different portions of the site.

With respect to jurisdictional status, over one-half of Moffett Field, including most areas slated for development under the NADP and the entire NRP, is under exclusive federal legislative jurisdiction. Such areas are sometimes known as "federal enclaves." Exclusive federal legislation means that the federal government alone has legislative jurisdiction and provides law enforcement and public safety services.

Almost all of the Bay View area is on lands in which the federal government has a proprietary interest, meaning that although the federal government owns the land it has no legislative jurisdiction. Typically, this status implies that a city or county would provide law enforcement and public safety services to these areas. However, in the case of Moffett Field, the Federal Government has historically provided those services in these areas, and anticipates continuing to do so in the future.

In areas under exclusive federal legislative jurisdiction, personal and real property are not subject to property, or *ad valorem* ("according to the value"), taxes regardless of whether the property is owned by the Federal Government or a non-Federal entity. As such, neither the Federal Government nor non-Federal entities operating under exclusive federal legislative jurisdiction are subject to possessory interest property tax. At Ames Research Center, non-Federal entities, including private corporations and non-profit private and state educational entities, will lease Federal land and construct buildings and other fixtures on site, and so will not be subject to real or personal property taxes.

However, Congress has waived the sovereign immunity of the Federal Government on exclusive jurisdiction land for other taxes. Under the "Buck Act," 4 USC 105-110, state and local sales and use taxes are applicable within exclusive federal legislative jurisdiction areas. The same is true for income taxes. Of course, such taxes may not be levied on the Federal government itself or any Federal instrumentality, but private for-profit corporations in exclusive federal legislative jurisdiction, as well as not-for-profit entities, are subject to these taxes.

Areas under partial legislative jurisdiction or proprietary interest are subject to state and local taxes. Therefore, non-Federal entities in these areas are subject to all taxes, including property tax, unless the entities have another status (e.g., not-for-profit or State entities) that would otherwise exempt them.

2. Santa Clara County

According to the Fiscal Year 2001 Recommended Budget, Santa Clara County anticipates $462.7 million in General Fund Unallocated Revenues for Fiscal Year 2000. Motor vehicle in-lieu fees and secured property taxes represent the two largest unallocated revenue sources, with $133.0 million and $180.0 million in respective revenues for Fiscal Year 2000.

The Fiscal Year 2001 Recommended Budget reports that County revenue has grown in conjunction with Silicon Valley's economic expansion. Three of the County General Fund's largest revenue sources – secured property tax, Motor Vehicle In-Lieu fees, and public safety sales tax – are all projected to increase between Fiscal Years 2000 and 2001. The County estimates a $6 million surplus as a result. However, expenditures have also risen in tandem with the economy. The Fiscal Year 2001 Recommended Budget reports that lease, salary, and employee benefits costs have grown dramatically, forcing the County to maintain a cautious approach to resource allocation.

3. The City of Sunnyvale

The City of Sunnyvale's Fiscal Year 2000/2001 Budget projects a total revenue of $203.2 million, and a General Fund revenue of $94.2 million. The two largest sources of revenue are Sales Tax, which comprises 14.2 percent of total revenue, and Property Tax, which is 10.5 percent of total revenue. Transient Occupancy Tax, Utility Tax, Gas Tax, and Other Taxes encompass 8.5 percent of the total revenue. State Shared Revenues, largely Motor Vehicle In-Lieu Fees, comprise another 5.3 percent of total revenue. Expenditures for 2000 to 2001 total $197.6 million, with a total operating budget of $157.9 million.

Like the County, the City of Sunnyvale has benefited from Silicon Valley's economic growth, with sales tax and property tax increases reflecting the area's prosperity. The 2000/2001 Budget states that other major revenue sources have also continued to grow, significantly exceeding earlier expectations. According to the Fiscal Year 2000/2001 Budget, the City's short-term financial outlook remains solid, although shifts in the regional and state economy, as well as legislative changes, may impact the City's financial well-being.

4. The City of Mountain View

The City of Mountain View's 2000/2001 Proposed Budget projects $150 million in total revenue, and $67.3 million in General Fund revenues for Fiscal Year 2000/2001. The two largest revenue sources, Sales Tax and Property Tax comprise 13.1 percent and 6.9 percent respectively of the City's total revenue. Other local taxes, including the Transient Occupancy Tax, Business License Tax, and Utility User's Tax make up another 4.7 percent of total revenue. Intergovernmental revenue, primarily Motor Vehicle License Fees, comprises 3.1 percent of total revenue. The City estimates $157.7 million in total expenditures over the same time period, $65.7 million of which goes towards General Operations.

While the City's utility funds and various special funds are in healthy financial condition, the 2000/2001 Proposed Budget reports the General Fund is relatively unstable. The City was fortunate in the mid-1990s as General Fund revenues experienced steady and significant growth. However, over the last three years General Fund revenues have failed to keep pace with growth in General Fund expenditures. According to the 2000/2001 Proposed Budget, decreasing Sales Tax revenue is primarily responsible for this situation. The

City's Economic Stabilization Contingency fund has helped avoid service cutbacks, but the fund has been reduced to the point that it cannot counter any more significant revenue reductions. This trend will present a major challenge to the City, as the General Fund supports most City services and the majority of the City's Capital Improvement Program.

5. Mountain View-Whisman School District

The Mountain View-Whisman School District serves elementary and middle school students from Moffett Field. This section describes the fiscal condition of the District.

The Mountain View-Whisman School District's 2001-2001 Budget projects $30.6 million in revenue and $30.4 million in expenditures for its General Fund. The excess funds from this fiscal year, combined with additional sources, provides the District an ending balance of $2.1 million.

A variety of federal, State, and local sources comprise the District's General Fund. The revenue limit represents the primary source of funding, comprising $20.6 million, or 67 percent of the General Fund. A school district's revenue limit is set annually by the State Department of Education, and is the amount of revenue that a district can collect annually for general purposes from local property taxes and state aid. The revenue limit is based on a district's average daily attendance (ADA), which is the number of students present on each school day throughout the year, divided by the total number of school days in the school year.

The District's General Fund also receives $1.2 million in federal income. School officials report that they estimate receiving $50,000 in Federal Impact Aid during this fiscal year.

In addition, the District receives $5.1 million in State income. A variety of sources ranging from Class Size Reduction funds to Lottery dollars comprise this category, and collectively make up 17 percent of the General Fund revenue.

Local income sources, the largest being lease revenue and Special Education Local Plan Area (SELPA) transfers, comprise the final $3.7 million, or 12 percent, of the General Fund.

6. Mountain View-Los Altos Union High School District

The Mountain View-Los Altos Union High School District Fiscal Year 2002 Budget projects $29.4 million in revenue and $28.8 million in expenditures for its General Fund. After interfund transfers, this results in a net general fund balance of $423,715.

The District's revenue limit of $24.8 million makes up over 84 percent of the total General Fund income. The District is a State Basic Aid District, indicating that the District's property tax revenue exceeds the State-set revenue limit. As a result, the State will only pay a Basic Aid amount ($120 per ADA or $24,000 per district, whichever is greater) for increased ADAs.

Federal sources contribute $454,102 to the General Fund. In the 2000-2001 school year, the District did not receive any Federal Impact Aid, and school officials report that they are unlikely to apply for aid in the foreseeable future due to the time-consuming application process and limited aid amount.

E. Environmental Justice

Environmental Justice is the principle that low-income and minority populations should not disproportionately bear the burden of environmental hazards. On February 11, 1994, the President of the United States issued an Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Executive Order 12898). The order is designed to focus Federal attention on the environmental and human health conditions in minority and low-income communities with the goal of achieving environmental justice.

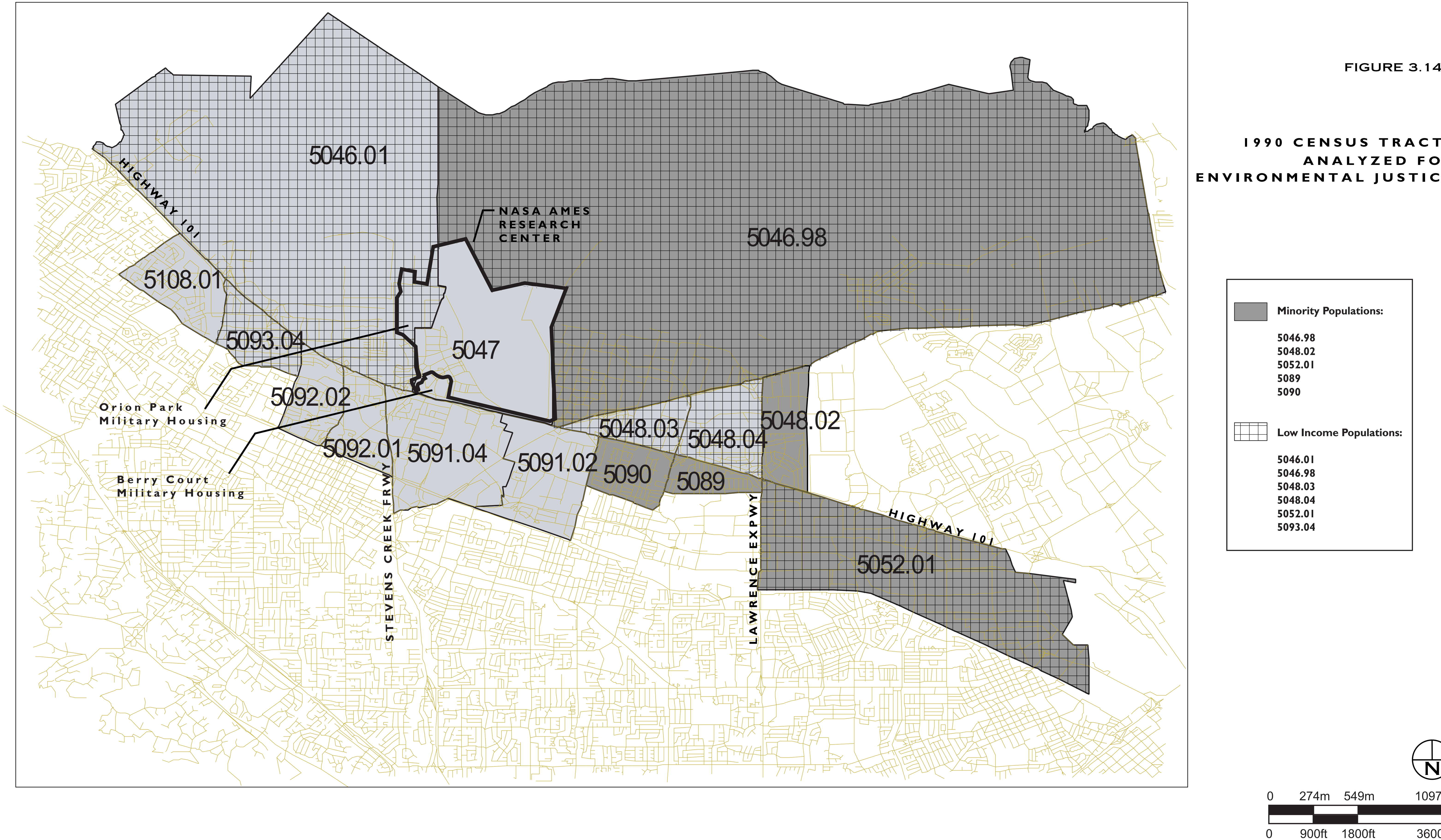
NASA has developed an Environmental Justice Strategy that implements the Executive Order by integrating environmental justice into all of its programs and activities. Each NASA center (including Ames Research Center) developed its own Environmental Justice Implementation Plan and adapted its NEPA process to ensure that environmental justice concerns are addressed in each Environmental Assessment and EIS, as appropriate. According to the Executive Order No. 12898, evaluation of potential environmental justice impacts should be based on socioeconomic information to the extent possible, identifying minority populations and/or low-income populations that may be adversely affected by NASA's activities.

Concerns have been raised that impacts from traffic and construction generated by implementation of the proposed NADP project could disproportionately affect low-income and minority populations. Information about minority and low- income populations was gathered for the 15 census tracts located along Highway 101 within 5 kilometers (3 miles) of Ames Research Center. These tracts include single- and multi-family housing and mobile home parks within the cities of Mountain View and Sunnyvale, as well as the Berry Court and Orion Park Military Housing areas, which are outside Ames Research Center boundaries but still within Moffett Field. Figure 3.14-1 shows the location of these census tracts.

1. Minority Populations

Table 3.14-16 provides a summary of racial information based on the 1990 Census for the census tracts surrounding Ames Research Center. Persons who identified themselves as white constituted the largest group in these census tracts (57.2 percent), followed by Asian (19.4 percent), Hispanic (10.2 percent), other (7.9 percent), and black (4.7 percent). A similar breakdown was found

FIGURE 3.14-1



1990 CENSUS TRACTS ANALYZED FOR ENVIRONMENTAL JUSTICE

TABLE 3.14-16 **RACIAL DISTRIBUTION IN THE ENVIRONMENTAL JUSTICE STUDY AREA (1990 CENSUS)**

	White	Hispanic	Black	American Indian, Eskimo, Aleut	Asian or Pacific Islander	Other	Combined Minority
5046.01	65.1	7.3	12.3	0.9	11.7	2.7	34.9
5046.98	22.8	52.1	0	0	2.9	22.2	77.2
5047	79.5	3.3	9.4	0	5.1	2.6	20.5
5048.02	47.6	8.8	2.6	0.3	33.2	7.4	52.4
5048.03	56.1	8.0	6.1	0.9	16.4	12.5	43.9
5048.04	68.1	5.2	2.2	0.1	18.1	6.3	31.9
5052.01	28.4	51.5	0	0.8	19.3	0	71.6
5089	37.9	9.0	3.3	1.2	36.8	11.8	62.1
5090	49.5	12.4	3.8	0.2	20.3	13.8	50.5
5091.02	65.5	6.8	5.5	0	19.4	2.8	34.5
5091.04	57.2	8.1	8.5	1.0	17.1	8.1	42.8
5092.01	67.9	4.8	3.2	0.3	18.9	4.9	32.9
5092.02	55.8	14.4	4.9	0.8	20.0	4.1	44.2
5093.04	58.8	7.4	6.9	1.6	13.1	12.3	41.2
5108.01	78.9	1.9	2.4	0	15.4	1.4	21.1
Moffett Area	57.2	10.2	4.7	0.5	19.4	7.9	42.8
Santa Clara County	58.4	10.8	3.7	0.6	17.5	9.1	41.6

in Santa Clara County as a whole, which is 58.4 percent white, 17.5 percent Asian, 10.8 percent Hispanic, 9.1 percent other, and 3.7 percent black. The combined minority populations in the tracts surrounding Ames Research Center is 42.8 percent. The combined minority population for Santa Clara County as a whole is 41.6 percent.

As defined by the Department of Housing and Urban Development (HUD), a minority community is one that is more than 40 percent minority populations. Based on this definition, nine of the census tracts surrounding Ames Research Center would be considered minority communities, as well as Santa Clara County itself. Of the census tracts that meet the HUD definition of minority communities, only five have a minority population substantially higher than the County average – tract 5046.98 (77.2 percent), 5048.02 (52.4 percent), 5052.01 (71.6 percent), 5089 (62.1 percent), 5090 (50.5 percent) – while four - tract 5047 (20.5 percent), tract 5048.04 (31.9), tract 5092.01 (32.9 percent), and tract 5108.01 (21.1 percent) have a minority population substantially smaller than the County average. An analysis of 2000 census race data found that the same number of census tracts surrounding the ARC would be considered minority communities. Four of the 2000 tracts have a minority population substantially higher than the County average.

2. Low-Income Populations

As defined by the Department of Housing and Urban Development (HUD), low income households are those households with incomes that earn 51 to 80 percent of the mean household income, and very low income households are those households with incomes under 50 percent of the mean household income. The overall mean household income in the City of Mountain view, based on 1990 census data (in 1990 dollars), is $51,970. The overall mean household income in the City of Sunnyvale, based on 1990 census data (in 1990 dollars), is $55,570. Based on this mean income data, it is assumed that the incomes for low income households are between $25,000 and $39,999 and that the incomes for very low income households are below $25,000. No data regarding income is available from the 2000 census at this time.

Table 3.14-17 provides a summary of income for the census tracts surrounding Ames Research Center, based on 1990 Census data. Collectively, incomes of households in the census tracts near the Center are consistent with those in Santa Clara County as a whole. Near Ames Research Center, an average of 22.7 percent of households are considered very low income and an average of 21.8 percent are considered low income. In Santa Clara County, 21.4 percent of households are considered very low income and 18.3 percent are considered low income. The tracts near Ames Research Center have an average of 44.5 percent combined low and very low income households, compared to 39.7 percent combined low and very low income households for Santa Clara County as a whole.

Individually, several census tracts near Ames Research Center have higher percentages of low and very low income households than the County as a whole. These include tracts 5046.01 (69 percent combined low and very low income), 5046.98 (61.4 percent combined low and very low income), 5048.03 (51.8 percent combined low and very low income), 5048.04 (52.7 percent combined low and very low income), 5052.01 (62.7 percent combined low and very low income), and 5093.04 (56 percent combined low and very low income).

TABLE 3.14-17 **INCOME DISTRIBUTION IN THE ENVIRONMENTAL JUSTICE STUDY AREA**

	< $25,000 (very low income)	$25,000 to $39,999 (low income)	$40,000 to $99,999	> $100,000	Combined Low and Very Low Income
5046.01	41.5	27.5	31.0	0	69.0
5046.98	34.4	26.9	37.5	1.2	61.3
5047	10.7	23.3	60.9	4.7	34.4
5048.02	21.9	19.3	53.8	4.9	41.2
5048.03	33.5	18.3	39.8	8.4	51.8
5048.04	28.6	24.1	43.1	4.2	52.7
5052.01	34.1	28.6	37.3	0	62.7
5089	22.6	24.6	46.3	6.5	47.2
5090	25.0	21.2	49.2	4.6	46.2
5091.02	16.4	18.0	58.6	7.0	34.4
5091.04	18.7	24.5	50.8	6.0	43.2
5092.01	20.9	22.2	49.1	7.7	43.1
5092.02	19.6	16.4	55.9	8.1	36.1
5093.04	23.0	33.0	41.8	2.2	56.0
5108.01	10.5	11.7	53.3	24.5	22.2
Moffett Area	22.7	21.8	48.7	6.8	44.5
Santa Clara County	21.4	18.3	48.9	11.4	39.7